Appendix C
GROUND WATER RESOURCES GRAPHICS

This appendix presents maps displaying the hydrologic characteristics of the aquifer systems found in the Lower West Coast (LWC) Planning Area: the Surficial Aquifer System (SAS), the Intermediate Aquifer System (IAS), and the Floridan Aquifer System (FAS). Additional generalized information can be found in Chapter 3 of the LWC Water Supply Plan Support Document for Charlotte, Collier, Glades, Hendry, and Lee counties. This appendix includes the following:

- A ground water resources graphic that depicts temporal and physical relationships between these different aquifer systems (**Figure C-1**)
- A generalized stratigraphic cross section showing the elevation and thickness of each of the aquifer systems (**Figure C-2**)
- Maps that display the hydraulic conductivity, transmissivity, thickness, and elevations of the different aquifer systems (**Figures C-3** to **C-16**)
- A shaded relief map of the LWC Planning Area depicting topographic surface elevation (**Figure C-17**)
- A table presenting individual permit allocations in the LWC Planning Area (**Table C-1**)

Information on ambient ground water quality, contamination sites, and saltwater intrusion are presented in Appendix G.

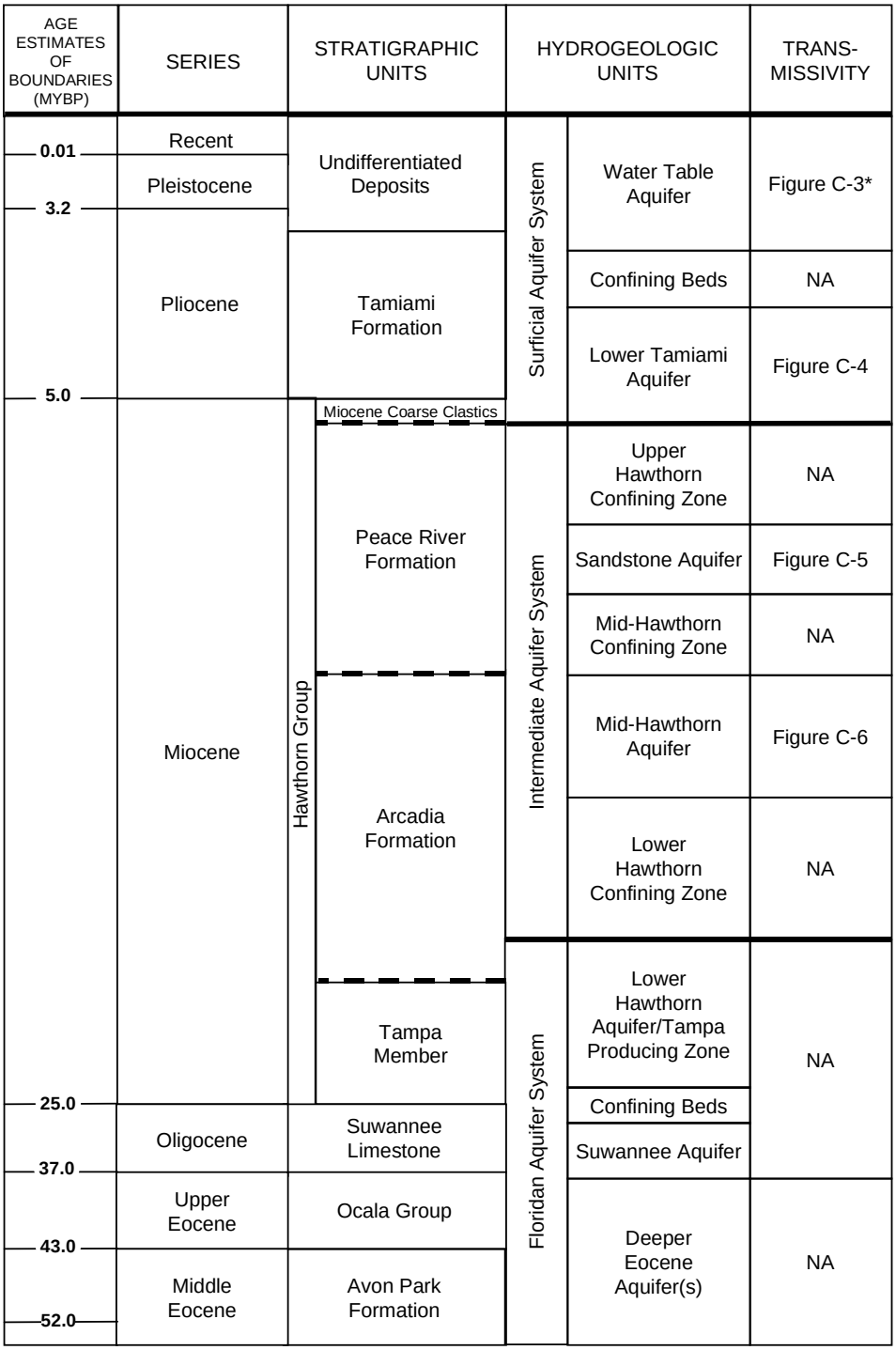

Figure C-1. Temporal and Physical Relationship Between Major Aquifer Systems in the Lower West Coast Planning Area.

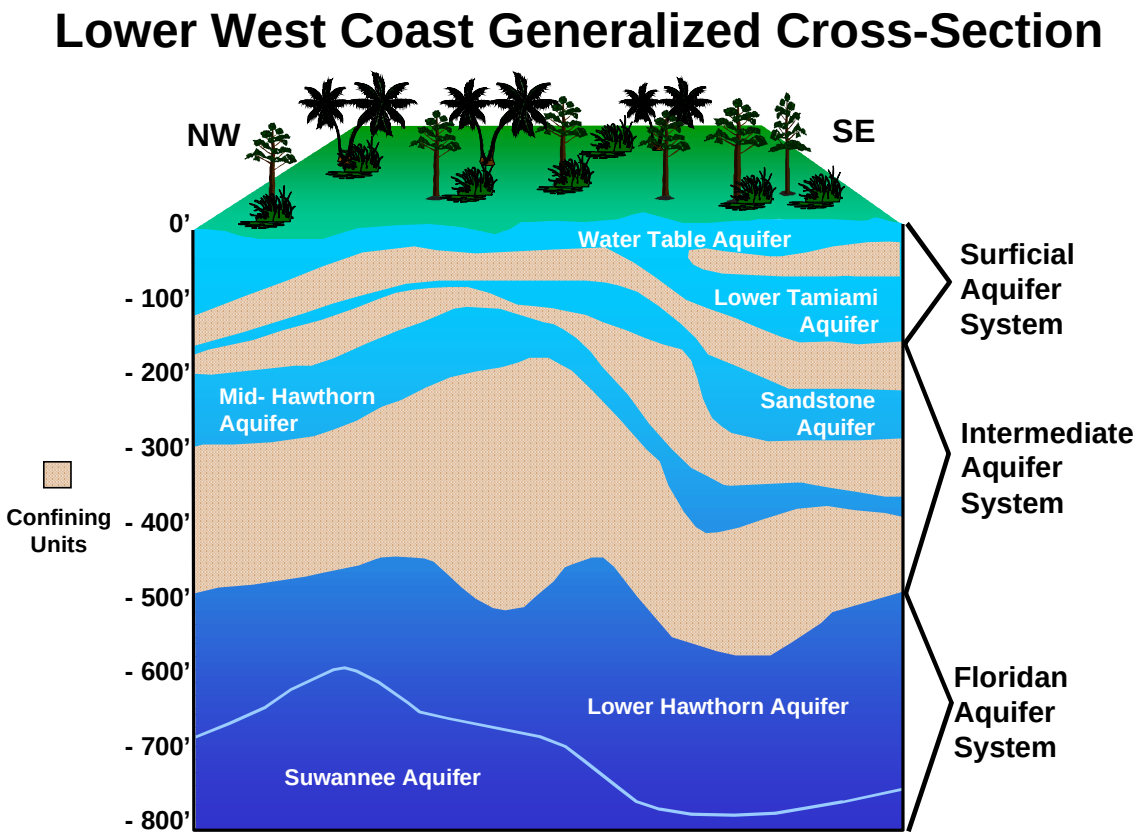

Figure C-2. Generalized Cross Section of Aquifers in the Lower West Coast Planning Area.

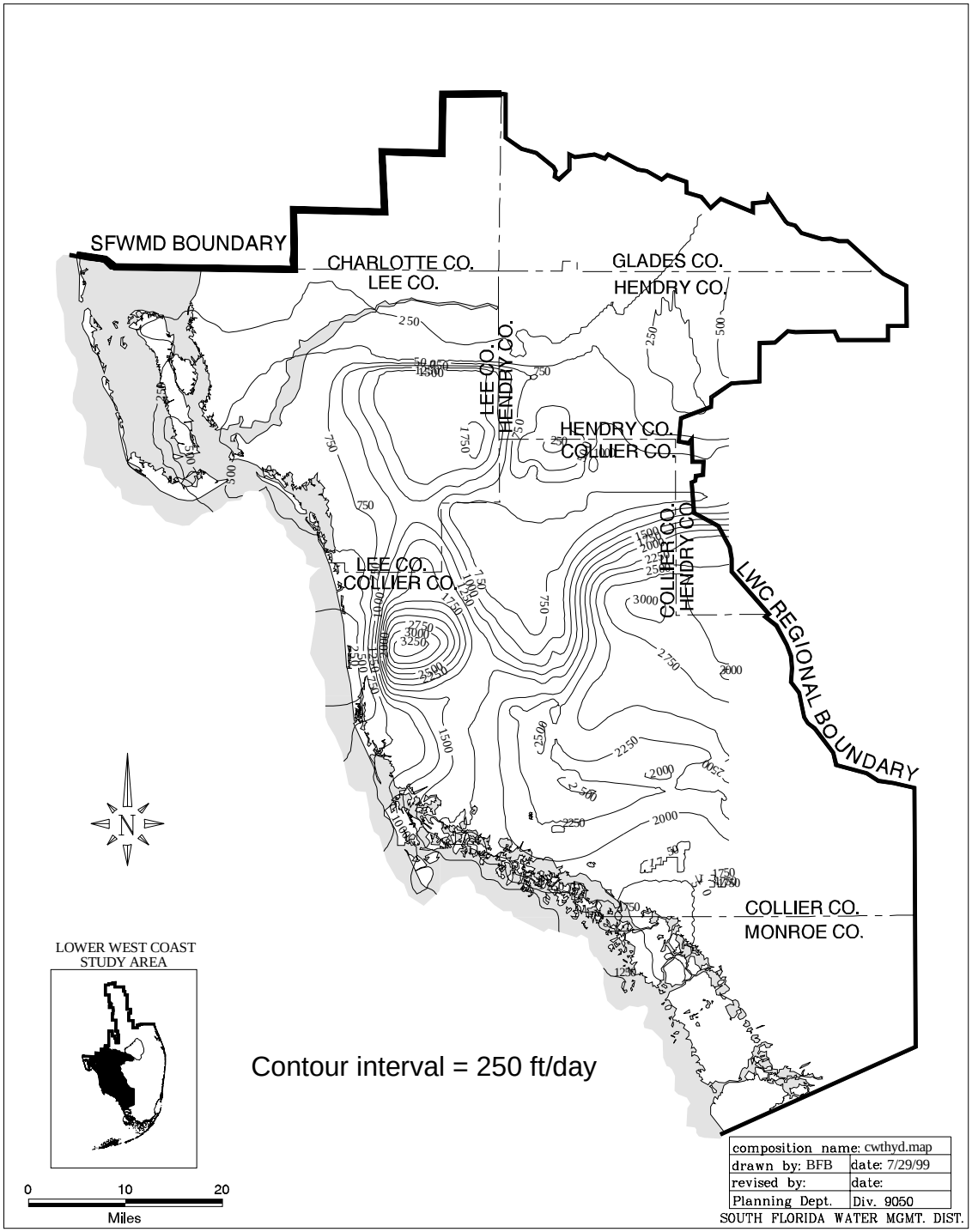

Figure C-3. Hydraulic Conductivity of the Water Table Aquifer (ft/day).

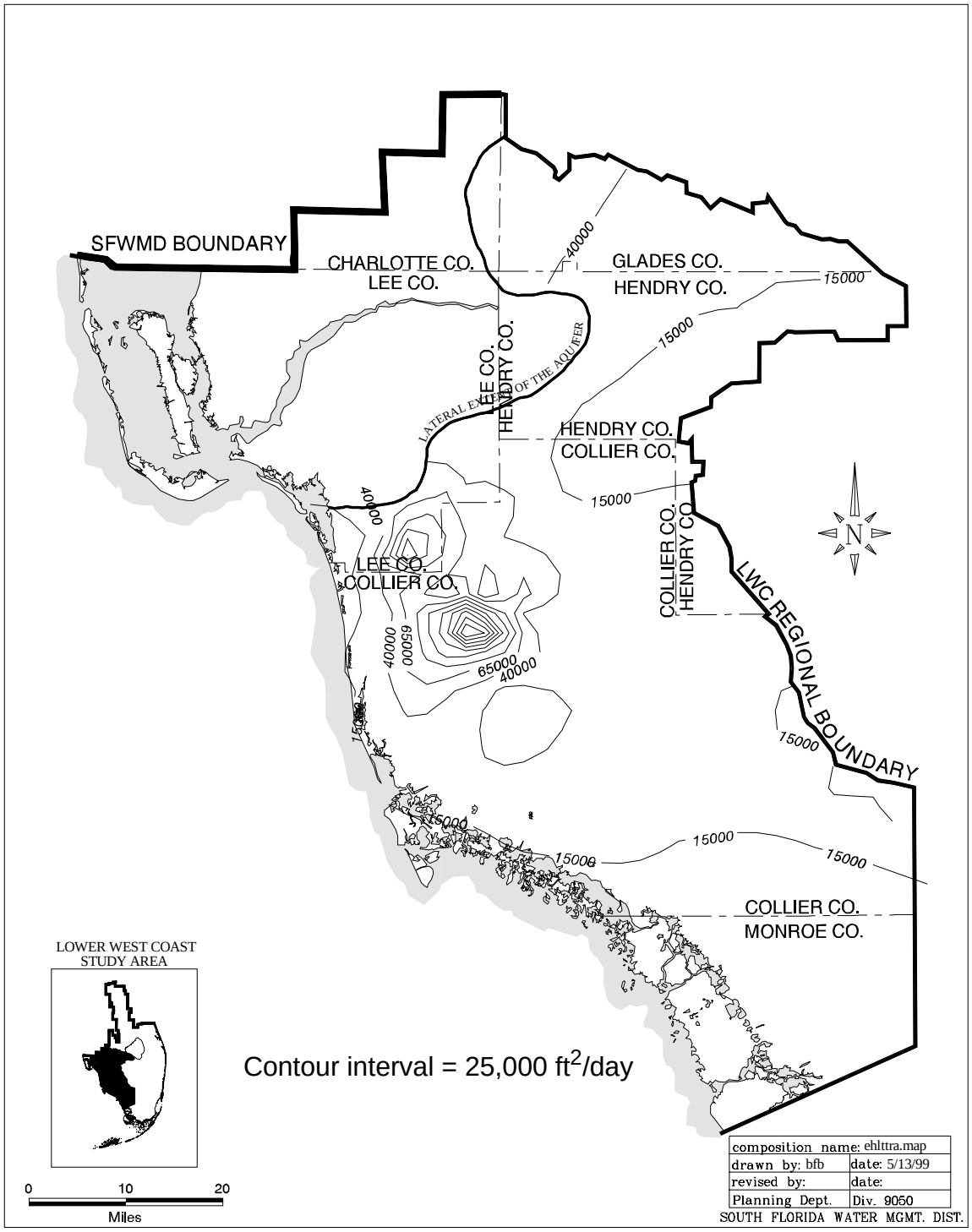

Figure C-4. Transmissivity of the Lower Tamiami Aquifer (ft^2/day).

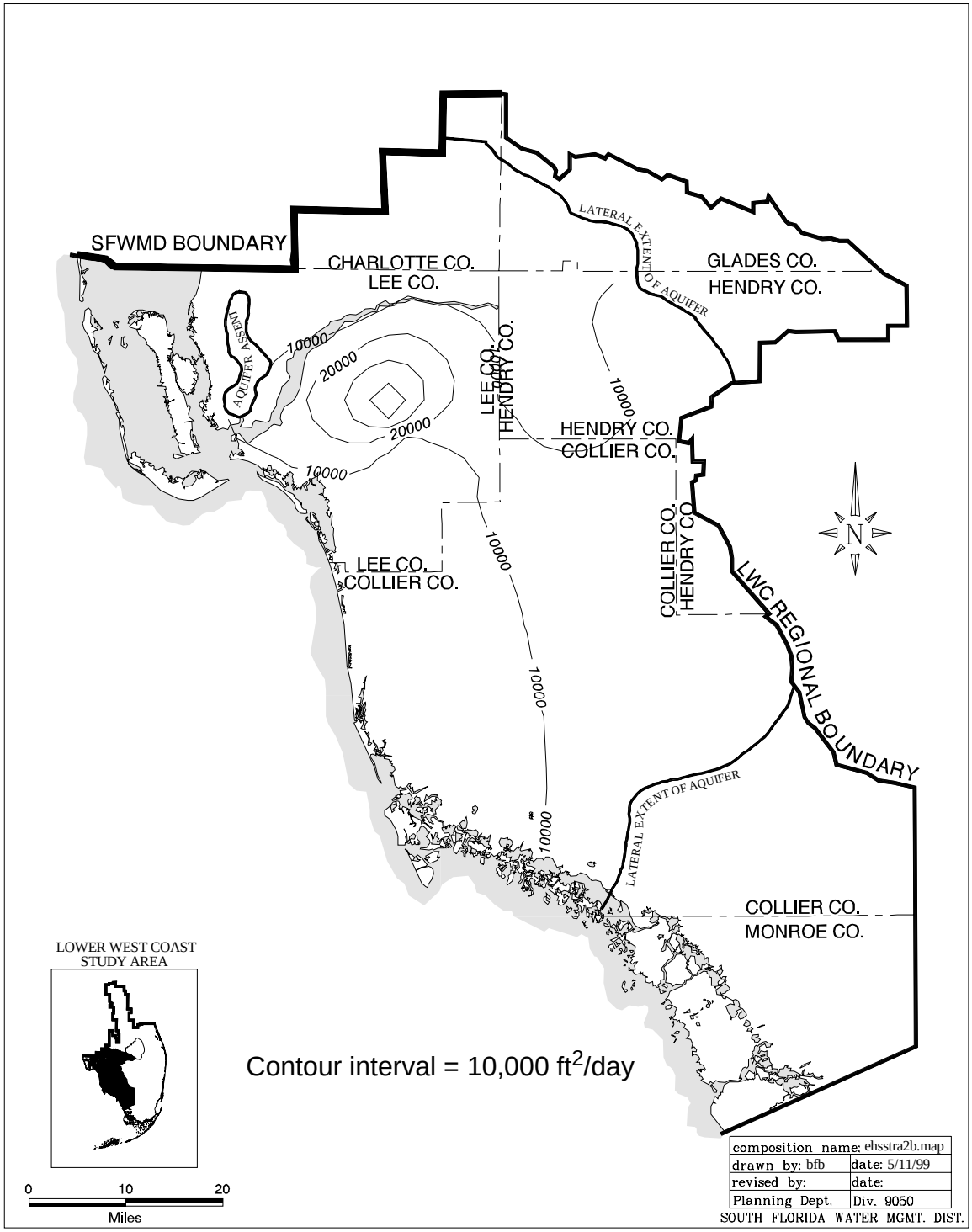

Figure C-5. Transmissivity of the Sandstone Aquifer (ft^2/day).

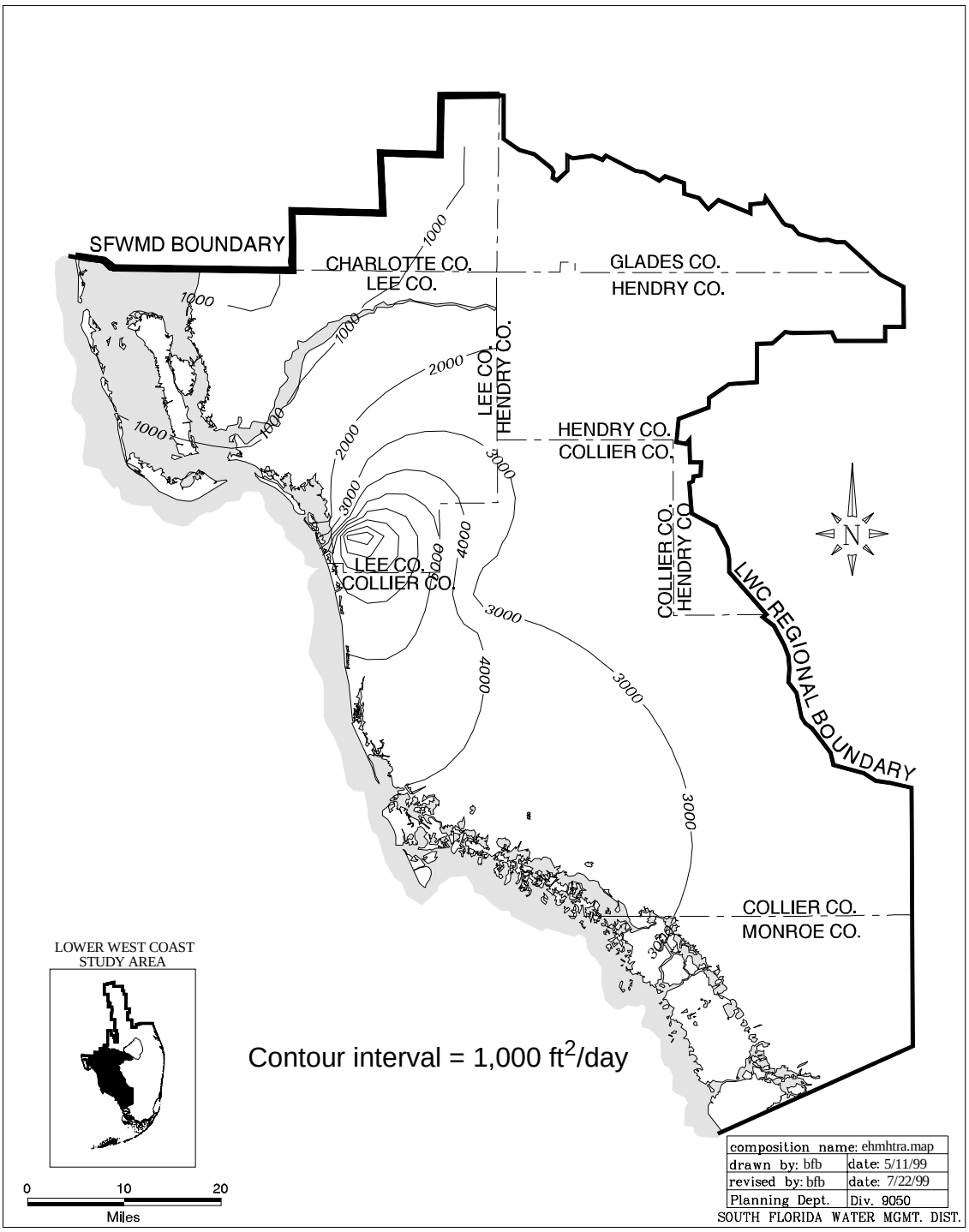

Figure C-6. Transmissivity of the Mid-Hawthorn Aquifer (ft^2/day).

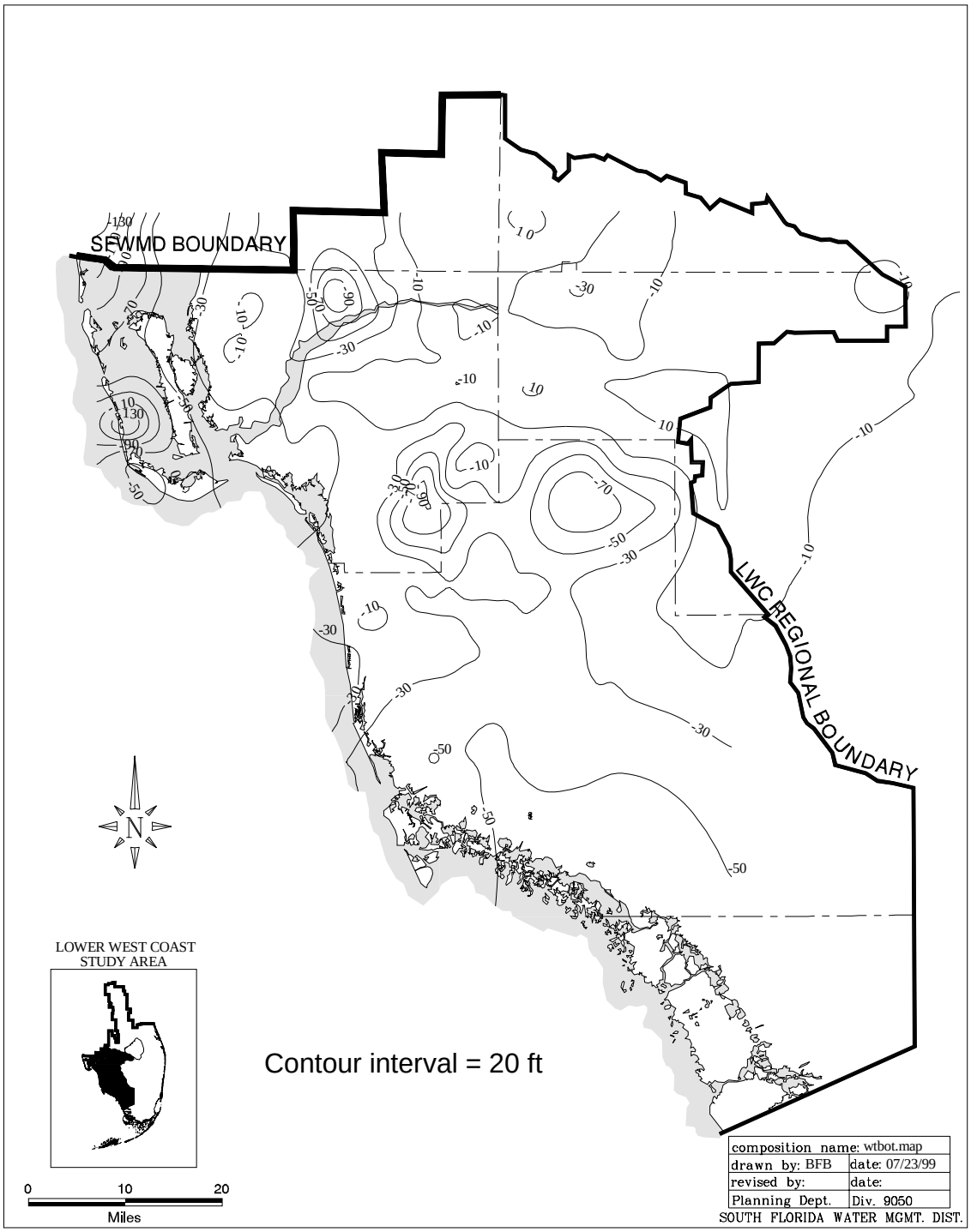

Figure C-7. Bottom of Water Table Aquifer (in feet, NGVD).

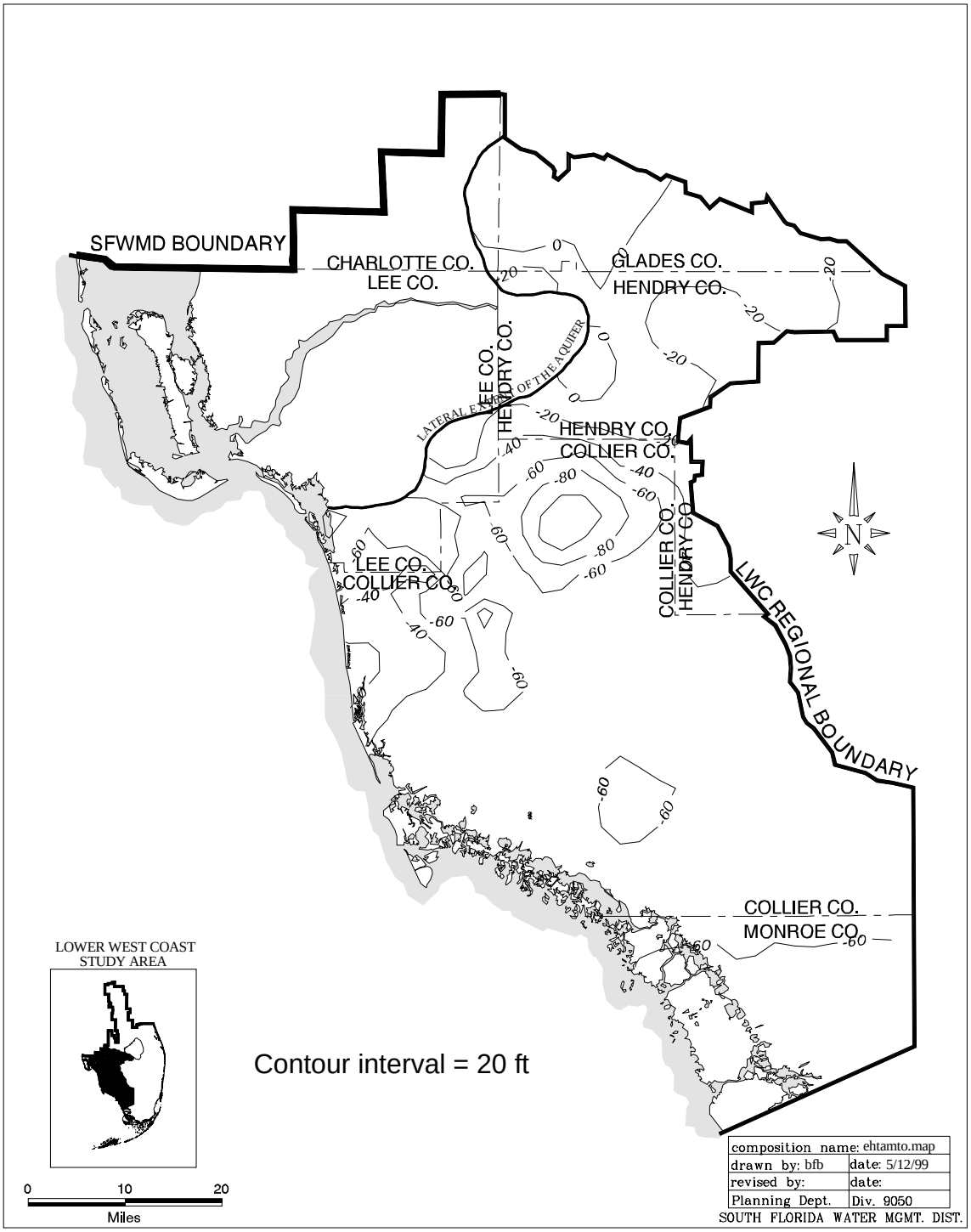

Figure C-8. Top of Lower Tamiami Aquifer (in feet, NGVD).

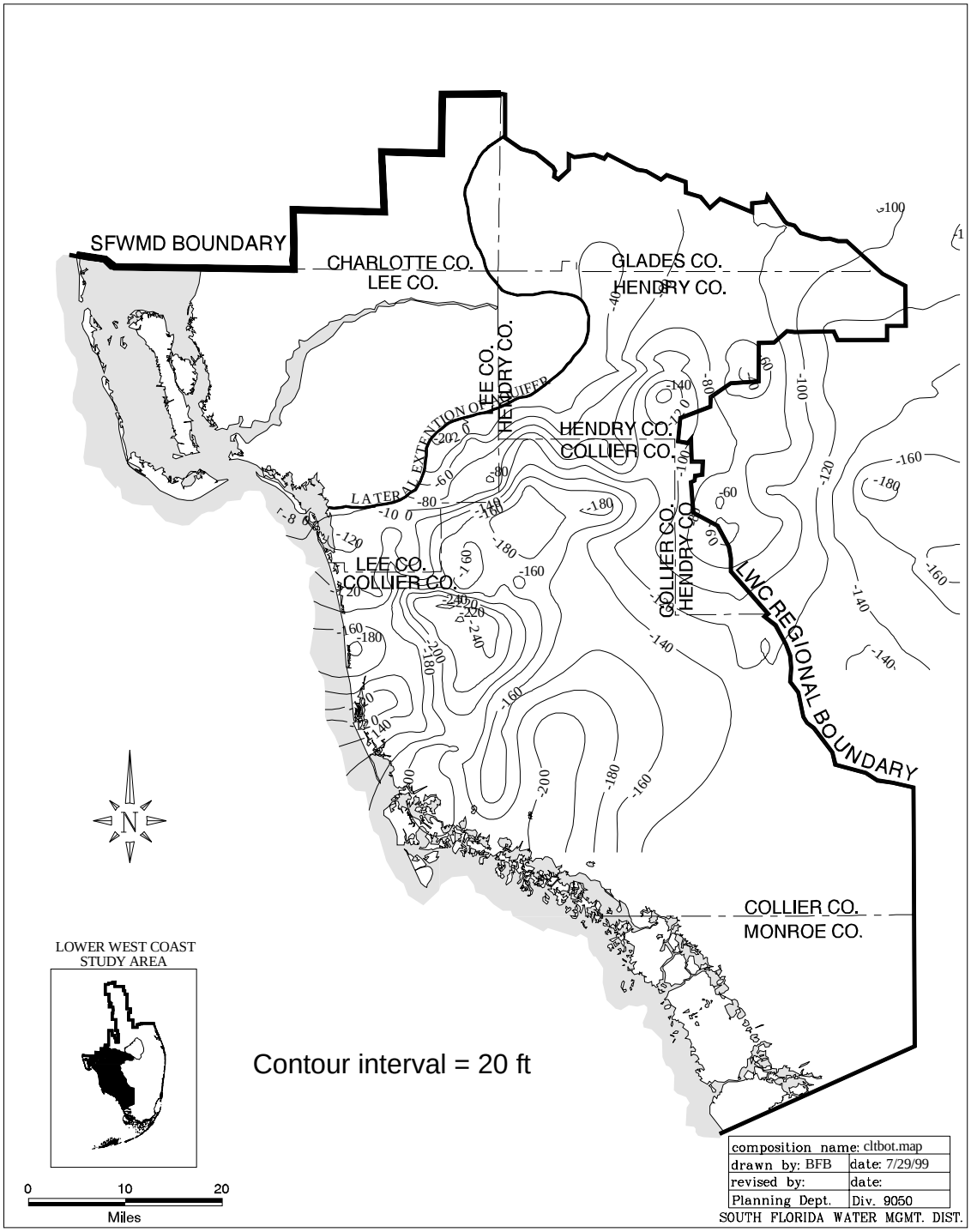

Figure C-9. Bottom of Lower Tamiami Aquifer (in feet, NGVD).

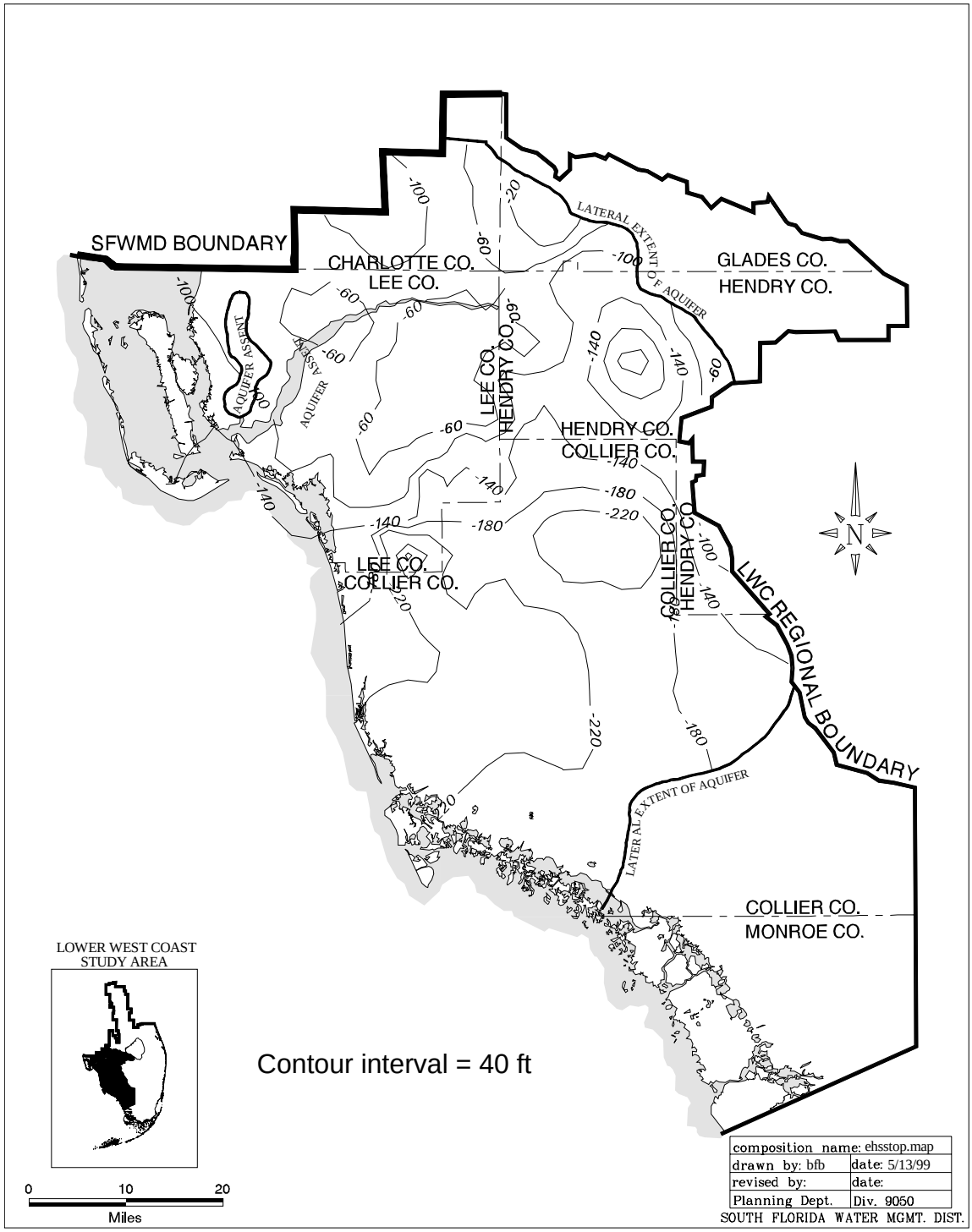

Figure C-10. Top of Sandstone Aquifer (in feet, NGVD).

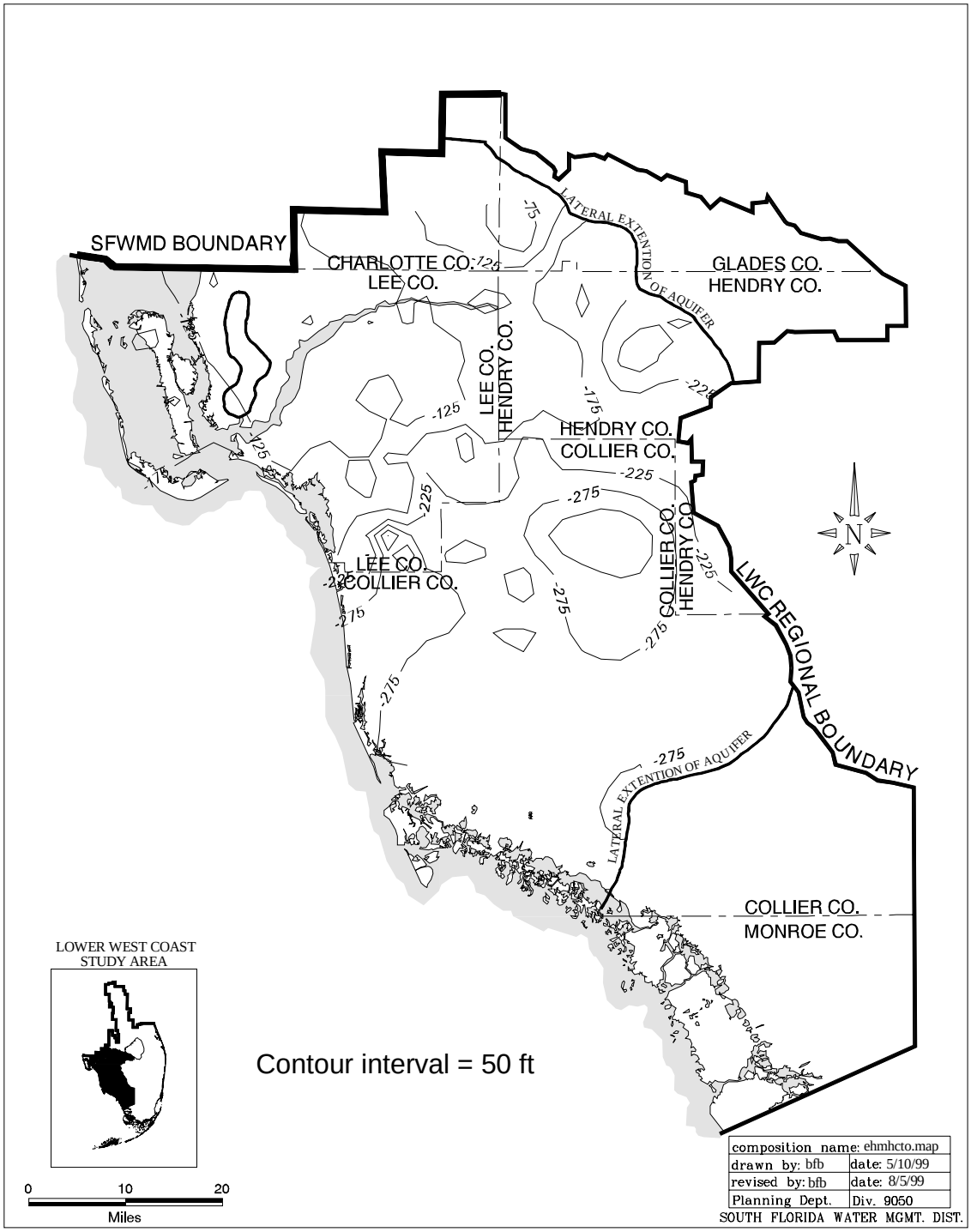

Figure C-11. Bottom of Sandstone Aquifer (in feet, NGVD).

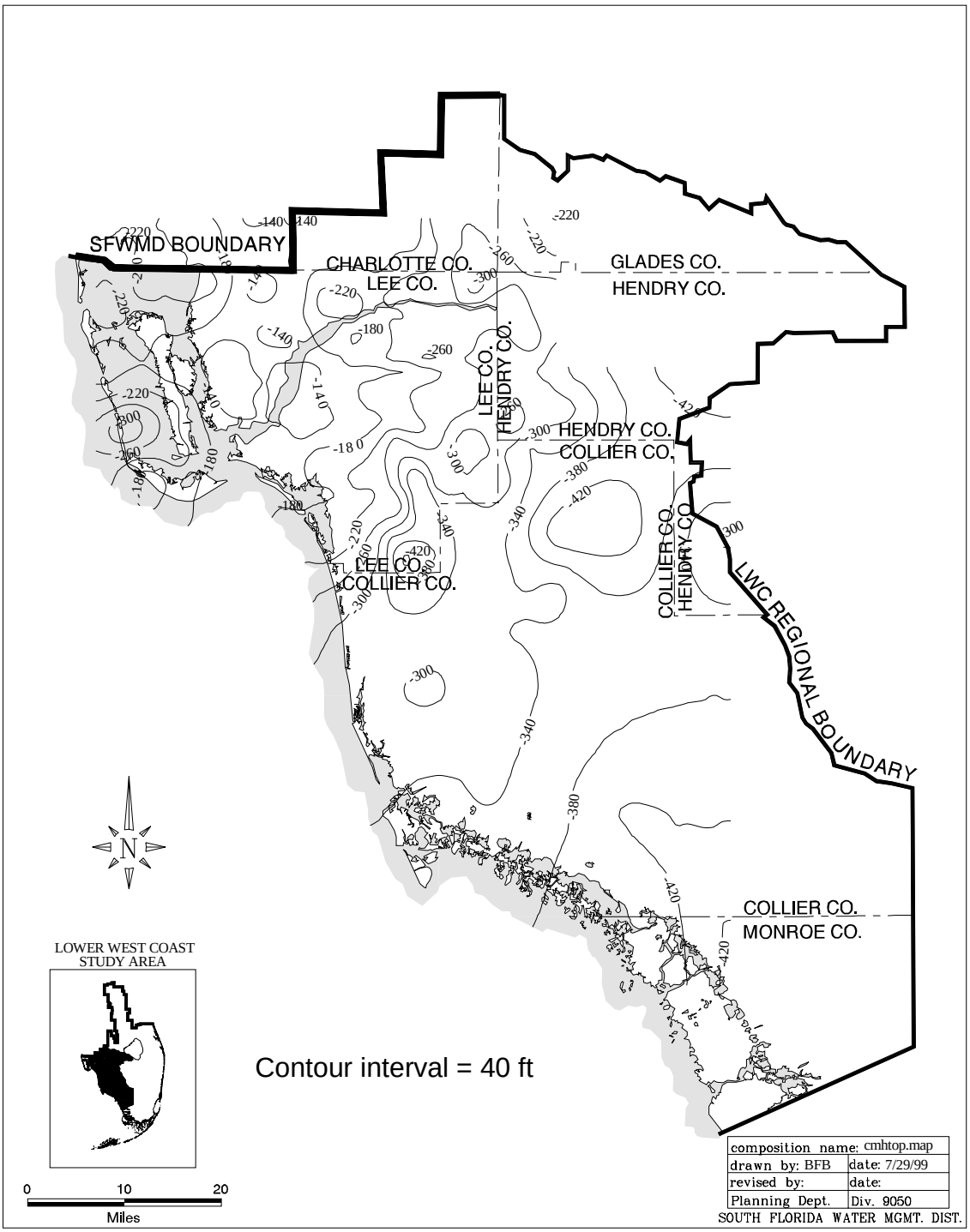

Figure C-12. Top of Mid-Hawthorn Aquifer (in feet, NGVD).

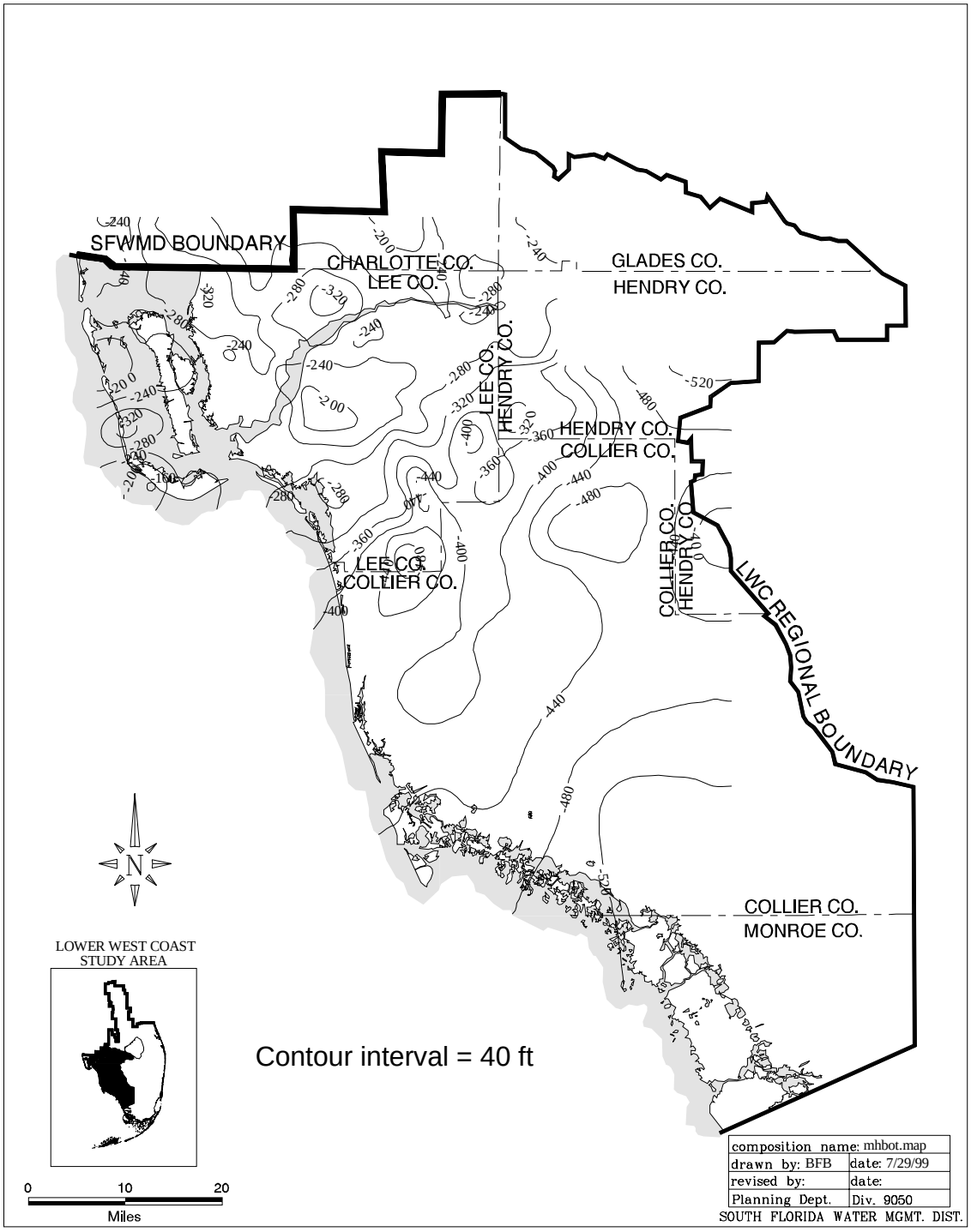

Figure C-13. Bottom of Mid-Hawthorn Aquifer (in feet, NGVD).

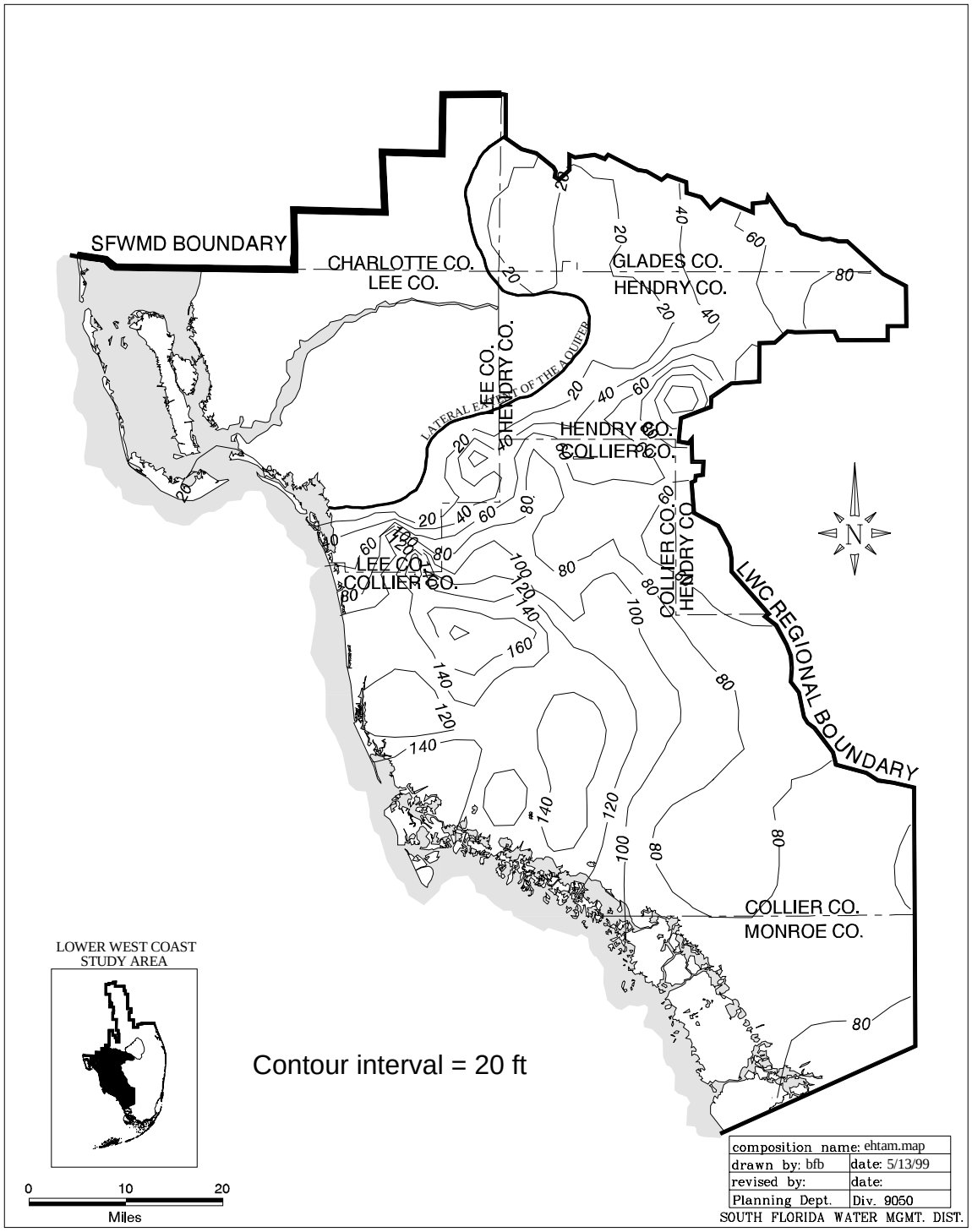

Figure C-14. Thickness of Lower Tamiami Aquifer (in feet).

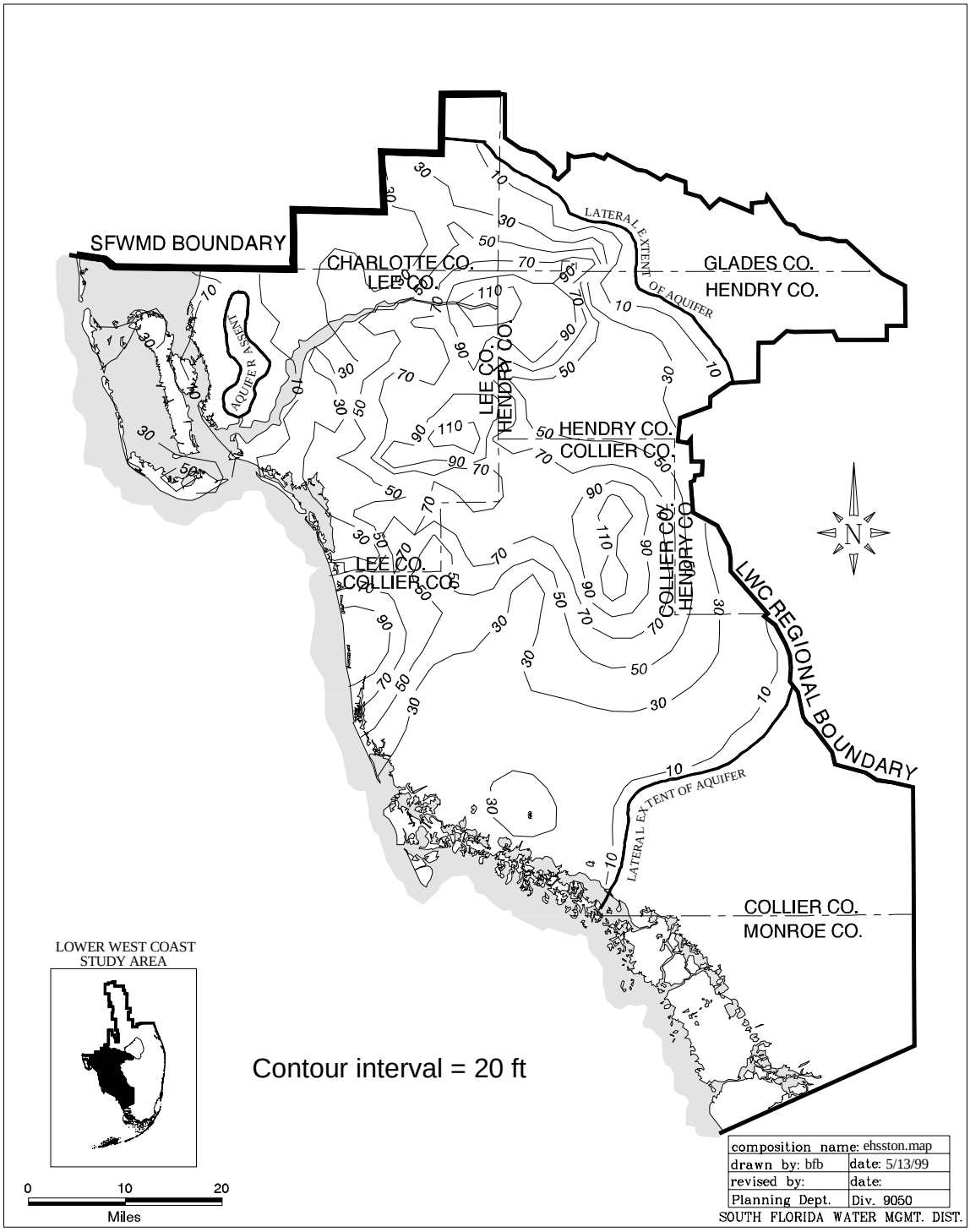

Figure C-15. Thickness of Sandstone Aquifer (in feet).

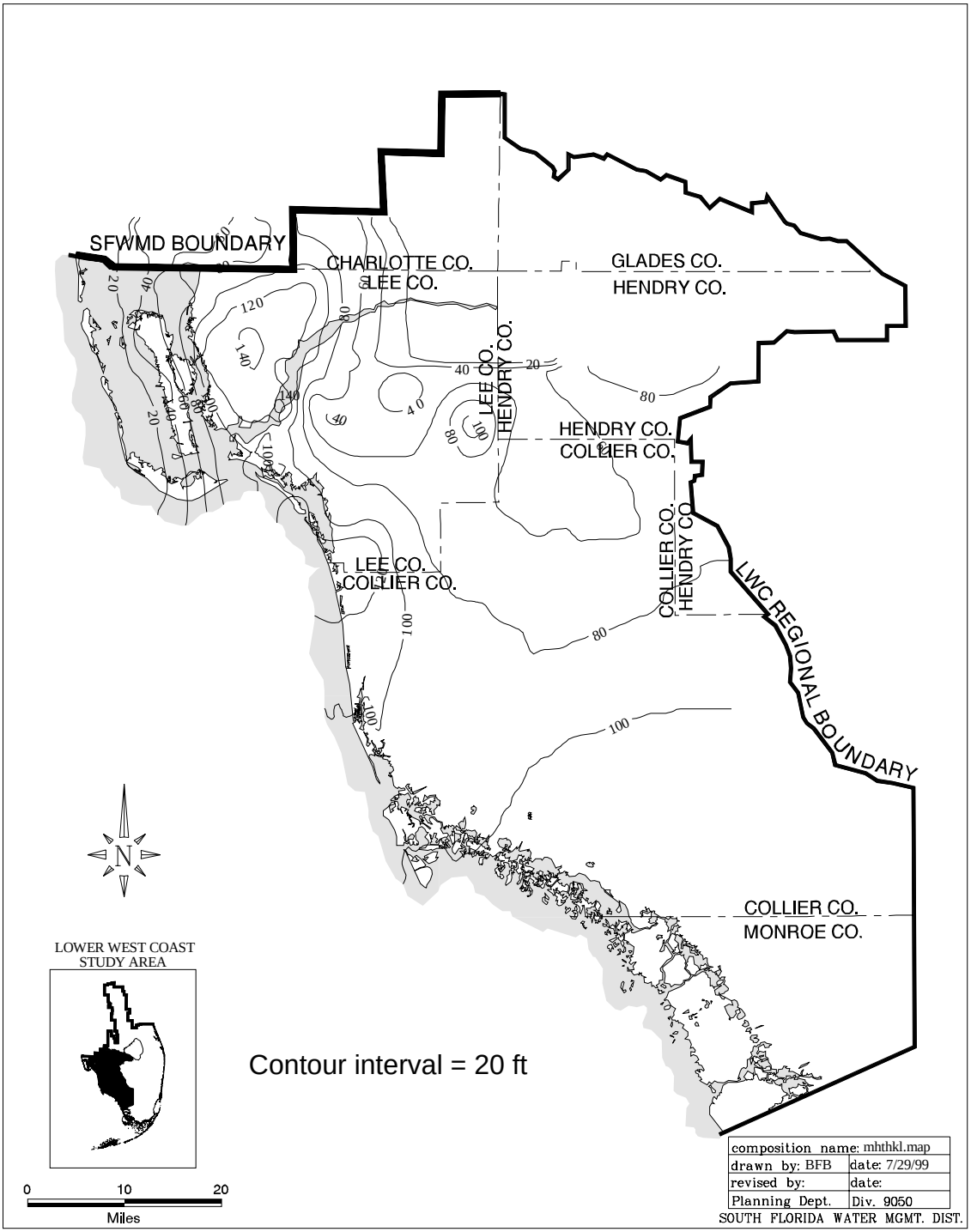

Figure C-16. Thickness of Mid-Hawthorn Aquifer (in feet).

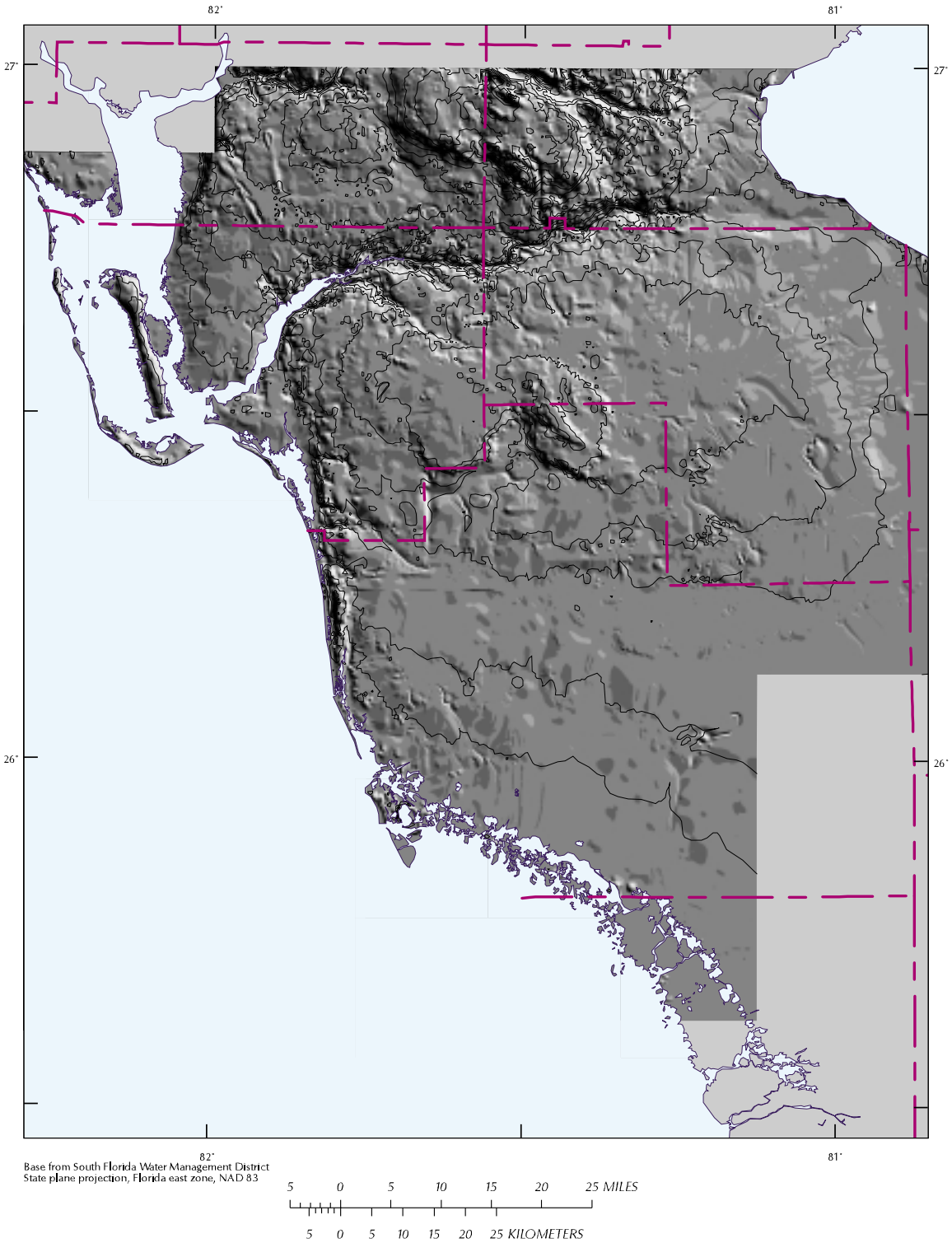

Figure C-17. Shaded Relief Map of the Lower West Coast Planning Area Showing Surface Elevation, Based on Topographic Data from 1:24,000 Scale U.S. Geological Survey Maps.

Table C-1. Individual Permit Allocations in the Lower West Coast Planning Area.

Water Use Category	Allocation (MGD)					Number of Permits			
	Ground Water	Surface Water	Both	Total	% of Total	Ground Water	Surface Water	Both	Total
Collier County (in the LWC Planning Area)									
Agriculture	204.63	0.76	70.35	275.73	50.68	114	5	21	140
Aquaculture	1.03	0.00	0.00	1.03	0.19	1	0	0	1
Nursery	0.77	0.00	0.23	1.00	0.18	12	0	3	15
Golf	1.29	4.03	18.41	23.73	4.36	3	11	32	46
Landscape	5.11	3.08	9.18	17.37	3.19	39	26	56	121
Livestock	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Dewatering	0.00	133.33	0.00	133.33	24.50	0	13	0	13
Public Water Supply	63.92	0.00	7.00	70.92	13.04	11	0	1	12
Industrial	0.50	6.67	1.20	8.37	1.54	10	2	1	13
Recreation	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Mining	0.00	12.60	0.00	12.60	2.32	0	1	0	1
Other	0.01	0.00	0.00	0.01	0.00	1	0	0	1
Total	277.25	160.47	106.37	544.09	100.00	191	58	114	363
Glades County (in the LWC Planning Area)									
Agriculture	30.52	105.67	33.20	169.38	68.83	41	35	11	87
Aquaculture	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Nursery	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Golf	0.00	0.61	0.00	0.61	0.25	0	1	0	1
Landscape	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Livestock	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Dewatering	0.00	4.18	0.00	4.18	1.70	0	1	0	1
Public Water Supply	0.81	0.00	0.00	0.81	0.33	4	0	0	4
Industrial	1.201	18.72	3.23	23.15	9.40	1	1	1	3
Recreation	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Mining	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Other	0.00	47.98	0.00	47.98	19.50	0	2	0	2
Total	32.52	177.16	36.43	246.11	100.00	46	40	12	98
Hendry County (in the LWC Planning Area)									
Agriculture	155.44	429.48	230.35	815.26	80.54	106	64	59	229
Aquaculture	0.00	0.00	0.00	0.00	0.00	1	0	0	1

Table C-1. (Continued) Individual Permit Allocations in the Lower West Coast Planning Area.

Water Use Category	Allocation (MGD)					Number of Permits			
	Ground Water	Surface Water	Both	Total	% of Total	Ground Water	Surface Water	Both	Total
Nursery	0.27	0.00	0.00	0.27	0.03	0	0	0	0
Golf	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Landscape	0.06	0.30	0.16	0.52	0.05	2	2	1	5
Livestock	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Dewatering	0.00	0.10	0.00	0.10	0.01	0	1	0	1
Public Water Supply	3.40	0.04	0.00	3.44	0.34	7	1	0	8
Industrial	1.67	0.00	0.16	1.84	0.18	7	0	1	8
Recreation	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Mining	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Other	0.00	190.81	0.00	190.81	18.85	0	2	0	2
Total	160.84	620.72	230.68	1,012.24	100.00	123	70	61	254
Lee County (in the LWC Planning Area)									
Agriculture	38.08	5.07	30.27	73.42	8.17	129	16	30	175
Aquaculture	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Nursery	0.69	0.14	2.08	2.91	0.32	12	3	7	22
Golf	1.80	2.34	13.64	17.78	1.98	6	10	34	50
Landscape	3.76	1.78	9.97	15.51	1.73	67	30	52	149
Livestock	0.00	0.00	0.00	0.00	0.00	0	0	1	1
Dewatering	0.00	35.63	0.00	35.63	3.96	0	12	0	12
Public Water Supply	25.39	1.81	52.41	79.60	8.86	13	1	6	20
Industrial	1.07	6.00	666.64	673.71	74.96	19	1	4	24
Recreation	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Mining	0.00	0.24	0.00	0.24	0.03	0	1	0	1
Other	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Total	70.78	53.02	775.01	898.80	100.00	246	74	134	454
Lower West Coast Planning Area									
Agriculture	428.66	540.97	364.17	1,333.80	49.38	390	120	121	631
Aquaculture	1.03	0.00	0.00	1.03	0.04	2	0	0	2
Nursery	1.72	0.14	2.31	4.17	0.15	24	3	10	37
Golf	3.09	6.98	32.04	42.12	1.56	9	22	66	97
Landscape	8.93	5.16	19.31	33.40	1.24	108	58	109	275

Table C-1. (Continued) Individual Permit Allocations in the Lower West Coast Planning Area.

Water Use Category	Allocation (MGD)					Number of Permits			
	Ground Water	Surface Water	Both	Total	% of Total	Ground Water	Surface Water	Both	Total
Livestock	0.00	0.00	0.00	0.00	0.00	0	0	1	1
Dewatering	0.00	173.23	0.00	173.23	6.41	0	27	0	27
Public Water Supply	93.52	1.85	59.41	154.77	5.73	35	2	7	44
Industrial	4.44	31.39	671.24	707.06	26.18	37	4	7	48
Recreation	0.00	0.00	0.00	0.00	0.00	0	0	0	0
Mining	0.00	12.84	0.00	12.84	0.48	0	2	0	2
Other	0.01	238.79	0.00	238.80	8.84	1	4	0	5
Total	541.40	1,011.36	1,148.47	2,701.23	100.00	606	242	321	1,169